TABLE OF CONTENTS

VOLUME 57, September–December 1967

AKSEL, RUSTEM, Quantitative genetic analysis of characters in wheat using crosses of chromosome substitution lines (theoretical considerations) 195–211

Author Index, Volume 57 971–972

BAUTZ, FRIEDLINDE A., and EKKEHARD K. F. BAUTZ, Transformation in phage T4: Minimal recognition length between donor and recipient DNA 887–895

BERENDES, H. D., and H. G. KEYL, Distribution of DNA in heterochromatin and euchromatin of polytene nuclei of *Drosophila hydei* 1–13

BERLYN, MARY B., Gene-enzyme relationships in histidine biosynthesis in *Aspergillus nidulans* 561–570

BIDDLE, FRED G., and MICHAEL L. PETRAS, The inheritance of a non-hemoglobin erythrocytic protein in *Mus musculus* 943–949

BODMER, WALTER F., and JOSEPH FELSENSTEIN, Linkage and selection: theoretical analysis of the deterministic two locus random mating model 237–265

BRIDGES, BRYN A., RACHEL E. DENNIS and R. J. MUNSON, Differential induction and repair of ultraviolet damage leading to true reversions and external suppressor mutations of an ochre codon in *Escherichia coli* B/r WP2 897–908

BURNS, J. A., and D. U. GERSTEL, Flower color variegation and instability of a block of heterochromatin in Nicotiana 155–167

CATTANACH, B. M., and J. H. ISAACSON, Controlling elements in the mouse X chromosome 331–346

CHUNG, YONG JAI, Persistence of a mutant gene in Drosophila populations of different genetic backgrounds 957–967

Corrigenda (Volume 55) 970

COURTRIGHT, JAMES B., Polygenic control of aldehyde oxidase in Drosophila 25–39

CROSS, RONALD A., and MARGARET LIEB, Control of heat-inducible λ bacteriophage 531–547

CROSS, RONALD A., and MARGARET LIEB, Heat-inducible λ phage. V. Induction of prophages with mutations in genes *O*, *P*, and *R* 549–560

CROW, JAMES F., and Y. J. CHUNG, Measurement of effective generation length in Drosophila population cages 951–955

DE SERRES, F. J., and B. B. WEBBER, The size distribution of X-ray induced multilocus deletions in the *ad-3* region of *Neurospora crassa* 449–454

DUTTA, S. K., N. RICHMAN, V. W. WOODWARD, and M. MANDEL, Relatedness among species of fungi and higher plants measured by DNA hybridization and base ratios 719–727

EL OKSH, H. A., T. M. SUTHERLAND, and J. S. WILLIAMS, Prenatal and postnatal maternal influence on growth in mice 79–94

FIELDS, WILLIAM G., and LINDSAY S. OLIVE, The genetics of *Sordaria brevicollis*. III. Gene conversion involving a series of hyaline ascospore color mutants 483–493

FISHER, C. R., Actinomycin D-induced phenotypic reversion in *Neurospora crassa* 189–194

FOGEL, S., and D. D. HURST, Meiotic gene conversion in yeast tetrads and the theory of recombination 455–481

FRANKLIN, NAOMI C., Deletions and functions of the center of the φ80-λ phage genome. Evidence for a phage function promoting genetic recombination 301–318

FRASER, ALEX, and DONALD BURNELL, Simulation of genetic systems. XII. Models of inversion polymorphism 267–282

FRASER, ALEX, Variation of scutellar bristles in Drosophila. XV. Systems of modifiers .. 919–934

GARNJOBST, LAURA, and E. L. TATUM, A survey of new morphological mutants in *Neurospora crassa* 579–604

GEORGE, WILLIAM L., JR., and OVED SHIFRISS, Interspersed sexuality in Ricinus 347–356

CONTENTS

GERSHENSON, S.; O. G. FAHMY and M. J. FAHMY, Comment on the paper by Fahmy and Fahmy in GENETICS Volume 54 (1966) 969

GRAY, THOMAS C., and HARRIETT EPHRUSSI-TAYLOR, Genetic recombination in DNA-induced transformation of pneumococcus. V. The absence of interference, and evidence for the selective elimination of certain donor sites from the final recombinants 125–153

GUNGE, NORIO, TAKASHI SUGIMURA, and MICHIKO IWASAKI, Genetic analysis of a respiration-deficient mutant of *Saccharomyces cerevisiae* lacking all cytochromes and accumulating coproporphyrin 213–226

HAEFNER, K., Concerning the mechanism of ultraviolet mutagenesis. A micromanipulatory pedigree analysis in *Schizosaccharomyces pombe* 169–178

HALLORAN, G. M., Gene dosage and vernalization response in homeologous group 5 of *Triticum aestivum* 401–407

HARDON, J. J., Unilateral incompatibility between *Solanum pennellii* and *Lycopersicon esculentum* 795–808

HELLING, ROBERT B., The effect of arabinose-specific enzyme synthesis on recombination in the arabinose genes of *Escherichia coli* 665–675

HIWATASHI, KOICHI, Serotype inheritance and serotypic alleles in *Paramecium caudatum* 711–717

HODGE, L. D., and E. GLASSMAN, Purine catabolism in *Drosophila melanogaster*. II. Guanine deaminase, inosine phosphorylase and adenosine deaminase activities in mutants with altered xanthine dehydrogenase activities 571–577

HUBBY, J. L., and S. NARISE, Protein differences in Drosophila. III. Allelic differences and species differences in *in vitro* hybrid enzyme formation 291–300

IGARASHI, K., S. HIRAGA, and T. YURA, A deoxythymidine kinase deficient mutant of *Escherichia coli*. II. Mapping and transduction studies with phage $\phi 80$ 643–654

JENKINS, JOHN B., Mutagenesis at a complex locus in Drosophila with the monofunctional alkylating agent, ethyl methanesulfonate 783–793

JHA, K. K., Genetic control of allelic recombination at the histidine-3 locus of *Neurospora crassa* 865–873

KITAGAWA, OSAMU, Interaction in fitness between lethal genes in heterozygous condition in *Drosophila melanogaster* 809–820

KITANI, Y., and L. S. OLIVE, Genetics of *Sordaria fimicola*. VI. Gene conversion at the *g* locus in mutant $\times$ wild type crosses 767–782

KNOWLES, BARBARA B., Fecundity and fertility in female homo- and heterokaryotypes of the tumorous-head strain of *Drosophila melanogaster* 437–447

MARINKOVIC, DRAGOSLAV, Genetic loads affecting fertility in natural populations of *Drosophila pseudoobscura* 701–709

MATHAN, DAVID S., Reversing the morphogenetic effect of phenylboric acid and of the lanceolate gene with actinomycin D in the tomato 15–23

MERRIAM, JOHN R., The initiation of nonhomologous chromosome pairing before exchange in female *Drosophila melanogaster* 409–425

MITCHELL, HERSCHEL K., URSULA M. WEBER and GERTRAUD SCHAAR, Phenol oxidase characteristics in mutants of *Drosophila melanogaster* 357–368

MOHLER, J. D., Some interactions of crossveinless-like genes in *Drosophila melanogaster* 65–77

MORGAN, M. P., L. GARNJOBST, and E. L. TATUM, Linkage relations of new morphological mutants in linkage group V of *Neurospora crassa* 605–612

MOUSTACCHI, E., H. HOTTINGUER-DE-MARGERIE, and F. FABRE, A novel character induced in yeast by P^{32} decay: The ability to manifest high frequencies of abnormal meiotic segregations 909–918

NEI, MASATOSHI, Modification of linkage intensity by natural selection 625–641

NEI, MASATOSHI, KEN-ICHI KOJIMA, and HENRY E. SCHAFFER, Frequency changes of new inversions in populations under mutation-selection equilibria 741–750

NIECE, R. L., and D. W. KRACHT, Genetics of transferrins in burros *(Equus asinus)* ... 837–841

OKADA, IKUO, and R. T. HARDIN, An experimental examination of restricted selection index, using *Tribolium castaneum*. I. The results of two-way selection 227–236

CONTENTS

PFAHLER, P. L., Fertilization ability of maize pollen grains. II. Pollen genotype, female sporophyte and pollen storage interactions 513–521

PFAHLER, P. L., Fertilization ability of maize pollen grains. III. Gamma irradiation of mature pollen 523–530

PRAKASH, SATYA, Association between mating speed and fertility in *Drosophila robusta* 655–663

PRAKASH, SATYA, Chromosome interactions in *Drosophila robusta* 385–400

RAO, R. NAGARAJA, and A. T. NATARAJAN, Somatic association in relation to chemically induced chromosome aberrations in *Vicia faba* 821–835

RAVIN, ARNOLD W., and KUO-CHUN CHEN, Heterospecific transformation of pneumococcus and streptococcus. III. Reduction of linkage 851–864

SALCEDA, VICTOR M., Recessive lethals in second chromosomes of *Drosophila melanogaster* with radiation histories 691–699

SANKARANARAYANAN, K., Influence of selection on the viability of irradiated experimental populations of *Drosophila melanogaster* 687–690

SARKISSIAN, IGOR V., and HARI K. SRIVASTAVA, Mitochondrial polymorphism in maize. II. Further evidence of correlation of mitochondrial complementation and heterosis 843–850

SAUL, G. B., 2nd, S. W. SAUL, and S. BECKER, Linkage in Mormoniella 369–384

SCALETTA, LAWRENCE J., NORMAN B. RUSHFORTH, and BORIS EPHRUSSI, Isolation and properties of hybrids between somatic mouse and chinese hamster cells 107–124

SCHLAGER, GUNTHER, and MARGARET M. DICKIE, Spontaneous mutations and mutation rates in the house mouse 319–330

SCHWARTZ, NORMAN M., Revertant instability in *Escherichia coli*. I. Mutagen and allele specificity 495–503

SCHWARTZ, NORMAN M., Revertant instability in *Escherichia coli*. II. Genetic studies .. 505–512

SHESTAKOV, SERGEY, and STEPHEN D. BARBOUR, The relationship between recombination and transcription of the lactose genes of *Escherichia coli* K-12 283–289

SMITH, OLIVER H., Structure of the *trpC* cistron specifying indoleglycerol phosphate synthetase, and its localization in the tryptophan operon of *Escherichia coli* 95–105

SPOFFORD, JANICE B., Single-locus modification of position-effect variegation in *Drosophila melanogaster*. I. White variegation 751–766

STADLER, DAVID R., Suppressors of amino acid uptake mutants of Neurospora 935–942

Subject Index, Volume 57 973–975

TAKANO, ISAMU and YASUJI OSHIMA, An allele specific and a complementary determinant controlling homothallism in *Saccharomyces oviformis* 875–885

TOBARI, YOSHIKO N., and KEN-ICHI KOJIMA, Selective modes associated with inversion karyotypes in *Drosophila ananassae*. I. Frequency-dependent selection 179–188

TOTTEN, R. E., and H. BRANCH HOWE, JR., Nuclear orientation in the ascospores of *Neurospora tetrasperma* 53–63

WAGONER, DALE E., Linkage group–karyotype correlation in the house fly determined by cytological analysis of X-ray induced translocations 729–739

WOOLF, CHARLES M., Viability of homokaryotypes in the tumorous-head strain of *Drosophila melanogaster* 427–436

YARBROUGH, KAREN, and KEN-ICHI KOJIMA, The mode of selection at the polymorphic Esterase 6 locus in cage populations of *Drosophila melanogaster* 677–686

YUHAS, JOHN M., CHARLES R. ANGEL, DORSEY T. MAHIN, RICHARD D. FARRIS, KENT T. WOODWARD, and JOHN B. STORER, Plasma enzyme activities in inbred mice 613–624

ZAMPIERI, ANTONIO, and JOSEPH GREENBERG, Induction of mutations in the *lac* region of *Escherichia coli* strain S 41–51

DATES OF ISSUE, Volume 57

Month	*Issued*	*Pages*
September	September 8, 1967	1–194
October	October 12, 1967	195–493
November	November 14, 1967	495–739
December	December 12, 1967	741–975